HAAGA-HELIA
University of Applied Sciences

Researching IT Strategic Planning and Processes in Educational Institution: Case HAAGA - HELIA University of Applied Sciences

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Abstract

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IT strategic planning and processes is one of the most vital aspects of every organization because it serves as a guide to information technology managers as to which areas to focus, what kind of decision to make, who should make those decisions and as well as how to monitor those decisions. Since planning and decision making is very critical for every organization, there is the need for a thorough research and analysis before planning and decision making.

HAAGA-HELIA University of Applied Science is a private / public educational institution which has over 10,000 students and over 700 staff(s) with several campuses across Finland. HAAGA-HELIA is one of the biggest University of Applied Sciences in Finland that offers education in diverse feilds such as Business Information Technology, International Business, Hotel and Restuarant, Physical Education, etc. The institution degree programmes leads to bachelor's and masters degree. Haaga-Helia UAS also has partnership with corporate companies as well as other universities all over the world.

With this vast network (over 10,000 students, 700 staff(s), several campuses and partnership), it is important for Haaga-Helia UAS to use IT strategy to create value for its business.

This study seeks to know how IT strategic planning and processes are being practised or used in HAAGA-HELIA University Applied Sciences. This study mainly focus on the management processes in HAAGA-HELIA Univsersity of Applied Sciences.

The result of this study will be used to determine the BEST practises for Haaga-Helia UAS.

Keywords
IT Governace, IT strategic planning, and IT strategic processes.

Contents

1 Overview

Information technology (IT) decision making can sometimes be confusing and frustrating especially in tertiary institutions. The reason can be attributed to the emerging of new technologies at an alarming rate, introduction of new applications for studies, students wanting to have access to the institutions server outside campus and finally the institution as a whole may also want to reduce its budget on IT issues.

How to make decision about the institutions priorities, strategies, goals, visions, resource allocation, getting the right person to make the decision and also holding people responsible or accountable for those decision has become a major challenge for most enterprises especially higher education today. In areas where IT governance planning and process becomes opaque, complex, static and does not bring effectiveness and efficiency, this situation calls for IT strategic planning and processes to help solve the problems of IT interrelated decisions as well as resource allocation decisions. Among some of the key questions that senior managers in institutions might be faced with are;

- How much should we spend on IT?
- Which business process needs more investment?
- What does the institution expects from IT (result or performance)?
- Who is to be held responsible if an IT project fails?
- What section of the IT services should be outsourced?
- What is the role of IT in the institution?

In reference to the above mentioned questions, there is the need to design a clear and a simple IT strategic planning and processes (IT governance) to help answer the above mentioned questions as well as increase effectiveness. (Clark 2005, 1-2.)

IT strategic planning and processes has been defined differently by different researchers and authors.

According to Ryynänen (2012, 1), Henry Minzberg defined IT strategy as a strategy that may include one or more of these elements "PLAN- PLOY-PATTERN-PER-SPECTIVE-POSITION"

Ryynänen (2012, 1-2), further observed that, IT strategy is a comprehensive plan that chief information officers (CIO) or information managers use to guide their organization. It is also part of the business strategy of a company. In other words, IT strategy has an impact to business strategy which fulfils the perceived expectations' of IT values in any organization. IT strategy covers all areas of technology management such as cost management, hardware, software, risk management, vendor management, etc and other enterprise IT environment such as enterprise resource planning, customer relationship management etc.

A common trend among these definitions relates to controlling, managing, planning, power and decision making.

All together, IT strategic planning and process is a well planned framework that clearly states the position of an institution or enterprise that allows senior managers to develop or adopt a process (IT governance, ITIL, COBIT etc) to help improve the decision making process regarding to IT issues that may help create value.

In this study, a research will be conducted into HAAGA-HELIA University of Applied Sciences IT strategic planning and processes and the findings will be used to improve decision making in the institution and also help managers to anticipate, forecast and mange the future. The main focus will be placed on IT strategic management processes (IT governance).

1.1 Research Type

A qualitative research will be employed. Strauss & Corby (1998, 10-11.), describes qualitative research as “any type of research that produces findings not arrived at by statistical procedure or other means of quantification”. A qualitative research was chosen in contrast to quantitative research because it perfectly suffices my research objective.

1.2 Research Methodology

In this study, two methods were used to collect data from the environment. The first method was face to face interview with heads of IT departments and Chief information officers in HAAGA - HELIA University. This method was chosen because it facilitated comprehensive, detailed and accurate response.

The second method was a questionnaire designed solely for the Unit director who is the head of corporate planning and IT services in HAAGA-HELIA University of Applied Sciences.
Finally, data from these interviews and questionnaires were analyzed using the confirmatory data analysis (CDA).

1.3 Research Scope

This study solely focuses on the writing of a formal report on the outcome of its findings on IT strategic planning and processes and make recommendations for HAAGA - HELIA University. Notably, how the recommendations of this study will be implemented is not include in the research work.

1.4 Research Question

As stated by Strauss & Corbin (1998, 41), “Research question in a qualitative study is a statement that identifies the phenomenon to be studied”. In this study, the main question was how IT strategic planning and processes were being practised in HAAGA-HELIA University? Other questions include:

- What IT decisions must be made?
- Who should make those IT decisions?
- How to monitor those IT decisions?

This study placed much emphasis on the processes (IT governance) and those sub questions are in relation to IT related decisions within an organisation.

1.5 Research Aim

The study aims at determining the efficient and effective IT strategic planning and processes method for HAAGA-HELIA University.

2 Literature Review

2.1 Definitions

For the sake of clarity and easy understanding, an attempt was made in finding definitions for the following terms:

2.1.1 Information Technology (IT)

Information technology is a set of computer applications that intends to store, retrieve, manage and transmit data from one point to the other. Examples of some IT areas are telecommunication, e-commence, hardware and software appliances, electronics etc
(Information Technology, Wikipedia)

This definition gives a general overview about IT. It is a fact that, IT allows the flow or exchange of data or information between devices.

2.1.2 IT Strategy

IT strategy is a draft that explains the objectives, principles and methods that is agreed upon by the top management that serves as a guide for chief information officers (CIO) or information managers in planning IT services in an organization.

(IT strategy (information technology strategy), SearchCIO)

Ryynänen (2003, 3), also described IT strategy as being part of the business strategy of a company. In other words, IT strategy has an impact to business strategy which fulfils the perceived expectations' of IT values in any organization. IT strategy covers all areas of technology management such as cost management, hardware, software, risk management, vendor management, etc and other enterprise IT environment such as enterprise resource planning and customer relationship.

In these two definitions from above, it can be inferred that, IT strategy is the process where mangers use IT as a tool to achieve it business goals. In other words, changing the mindset of managers about IT – not just a device but a tool to support any enterprise business processes and also create value.

2.1.3 IT Strategic planning

IT strategic planning is a set of procedures that in a way can be used to forecast, anticipate and manage the future. Planning basically introduces a formal way of conducting long term thinking for an institution in order to reduce risk from both internal and external environment. It can also serve as identifying opportunities for the institution. (Sacramento State Information Resource and Technology, 1)

It can also be said to be a map that defines the routes that when an institution takes can lead them to their desired objectives. IT strategic planning brings life to mission and vision of an institution. (Dix & Matthew 2002, 1)

In brief, IT strategic planning is the process of putting the required activities ahead to achieve a specific goal. Planning is very crucial in very institution because it serves as the back bone of the institution. Poor planning leads to poor decision making that may affects productivity.

2.1.4 IT Strategic (Management) processes

IT strategic management processes, these are top level processes within a company that needs knowledgeable and professionals in handling complex task that may have diverse effect on the structure and functioning of the institutions. These processes include making decisions, converting data into information and drawing of budgets for IT departments.
(Strategic Processes - Meaning and its Features, Management Study Guide)

These management processes consist of Information officers, IT directors, functional leaders and business unit leaders.

2.2 Scope of IT Strategic planning

Basically, IT strategic planning in a way attempts to answer some important questions about every institution. These questions include:

- What is the current position of the institution in terms of progress?
- What does the institution wants to achieve in the next 10, 20, 40 years?
- How big is the gap to achieve those projections for the institution?
- How can the institution close the gap in relation to their resources?

Answers to these questions require a thorough study or understanding of the organizations internal and external environments. Understanding the internal resources and external resources equips the institution to plan for the present and future.

2.2.1 Internal Resources

According to Ryynänen (2013, 1-3.), all resources have got three basic elements such as:

- The NEED for the resource
- The USAGE of the resource
- The RESULT to be derived from the resource

In reviewing this literature, it was realized that every resource has got some limitations which means resources must be used judiciously. Some of the factors that set limitations on resources could be cost, its availability, term of use, knowledge or skills needed etc. Therefore, resources must be controlled and managed well by the owners. Institutions must begin to see IT as a resource that can facilitate value creation processes since devices or services cannot create value for itself. Orientation to IT resource thinking or planning is very important because it provides a framework to understand IT and also explains the role of IT in an institution.

It was also realized that, there are basically two forms of resources namely; classical and modern resources. Some of the examples of classical resources are machines or equipment, money and human beings. Classical resources are tangible and can easily be measured.
Modern resources are mostly intangible and have no physical form. Examples are skills, knowledge, information, data and codes.

2.2.2 External Resources

According to (PESTLE-Macro Environmental Analysis, Oxford Learning Lab), analysing the external environment gives an institution the overview of the macroeconomic factors to be considered before planning. Some of the macroeconomic factors to be considered are:

- Political factor. This is how the government regulates the economy. To be more specific, it includes areas like taxations, trade restrictions, labour laws, environmental laws. Political factors also include products that need to be produced and those that are banned.

Political issues needs to be taken serious by the management during IT strategic planning because in any environment – market or economy, there are laws that regulate the production and movements of products and services. Laws like labour laws, consumer and environmental laws must be taken serious.

- Economic factors. This factor describes the exchange rate, interest rate, economic growth and inflation rate. Economic factors help to explain how businesses operate and make decisions. Example, exchange rate affects the export of goods and at the same time the supply of goods. It also affects the prices of imported goods.

Management must consider these factors when selecting a vendor for the supply of IT infrastructure or other materials. Example, exchange rate might be one of the factors to be considered when selecting a vendor outside your region.

- Social factors. This factor best describes the cultural aspect of the economy that includes age rate, population growth, sex, etc. This factor can also affect the demand for a company's product.

Cultural issues are very sensitive and must be taken very serious when planning. A person's religion alone can sometimes affect his productivity when he or she is given a task that contradicts his religious belief.

- Technological factors. This includes rate of technological change, automation, research and development activity and technological incentives. This factor can really influence outsourcing decisions.

This is another factor that needs to be considered due to the rapid technology changes. In planning, managers should make provisions for any future change or demand for new technologies or even outsource some part of its IT services.

- Environmental factor. This includes weather and climate change. Climate change at times has a great influence on the demand for certain products and thereby has a great influence on decision making.
- Legal factors. This includes discrimination laws, consumer laws, health and safety laws and employment laws. It can also affect the way an institution operates.

2.2.3 Importance of IT strategic planning

The easy answer to the question of, why do we need a plan is to help us know where we are going as an institution.

According to Dr. Robert L. Caret, president of Towson University, “I believe a strategic plan must be a living documents that evolving with the campus from generations to generations and administration to administration”. (Presidential Perspectives 2006, 1.)

Thus, He argued that, planning must be consistent and flexible enough to be adjusted and adapted to meet the continuous growth and transition of every institution in the present and future.

According to (Sacramento State Information Resource and Technology, 2), leading institutions that plan well derive some benefits. These benefits include;

- It provides a common sense of direction and focus for all of the management within the institution. Planning allows managers and workers to know and also have a common understanding of where the institution current position and its future trends.
- It also improves the efficient and effective allocation of IT resource within an organization. In other words, IT strategic planning allows an equal sharing of resources within an institution.
- It further increases the flow of internal information and pro-cesses within the IT departments. It helps close the gaps that delays communication and processes internally
- Furthermore, it helps CIO’s to align the directions of IT business functions to the organization. Managers, are able to link the organizations IT focus or direction to that of the organizations directions
- IT strategic planning helps reduce the time and expenses spent on IT life span especially during vendor selection, review, approval, disapproval and implementation

- Finally, its help chief information officer to manager expensive and critical assets of the organization.

2.3 Major checklist to build IT Strategic Plan

Developing a good IT strategic plan for an institution can sometimes become more cumbersome due to the complex structure of the institution. These days Universities may want to introduce new programmes, new applications or even introduce virtual studies for their students and by so doing planning for such institution demands a lot of time and strategic thinking.

To develop a good IT strategic plan for an institution, the following must serve as a checklist from which a plan can be drawn.

- Pre – analysis. This simply means having answers in advance to a host of basic questions. Some of these questions are;
    - What are the aims and objectives of the University drawing the plan
    - What kind changes or result is being expected after implementing these plan
    - Does the University have any specific stakeholder that needs the end result?
    - What was the outcome of the subsequence planning over the years?
    - Is the University using a different method in drawing the plan this time?

  (Sacramento State Information Resource and Technology, 14)

Trying to formulate some basic questions before drawing up an IT strategic plan, gives the individuals involved a common goal or directions as to the kind of results being expected. Individual's mindset is prepared for that project.

- The institutions Mission, Vision and Goal. This describes what the institution stands for, why are they in business and what they want to achieve as an institution. They reflects what planning is designed to achieve in an institution

(Strategic Planning, Wikipedia)

A good understanding of these missions, visions and goals will give a clear statement about what is expected to be achieved after the planning. These can be referred as IT principles.

- Environment analysis. Although some strength, weakness, opportunity and threats are quite easily identifiable, some are not. This needs thorough investigation and data collection and analysis needs to be conducted to help identify areas that are not known and to derive competitive advantage from them. (Strategic Planning, Wikipedia)

It must be emphasized that, analyzing institutions strength, weakness, opportunities and threats (SWOT) forms the baseline from which planning starts. Knowing the institutions weakness and threats in advance really helps in planning – taking security issues serious. Moreover, an institution can also capitalize on its strength and opportunities when they are well considered in the planning.

- Gap analysis: explains the distance between the institutions present and the future. This involves a systematic comparing of step 2 (mission, vision and goal) to step 3 (SWOT analysis). In this way, some questions may further be asked such as;
  - How big is the gap?
  - What is the cause of the gap?
  - Can the institution close the gap?
  - Is it necessary to close the gap now or later?
  - Does the institution have the required resources to close the gap?
  - Is the institutions goal realistic?

  (Sacramento State Information Resource and Technology, 14)

A critical analysis of the current state of the institution and what it aspires to achieve in future is very important in planning because managers are able to ascertain the kind of measures or resources to invest into bridging the gap.

- Objectives. A company's objective can be defined as a particular result that a company aims to achieve within a specific time frame and with the available re-sources. Company objective serves as the basis for creating policy and analyzing performance. (Friel, 2009.)

In other words, it is important for institutions to set objective that can be achieve with the available resources.

- Other possibilities. This is the stage where open discussion is encouraged among all relevant stakeholders within the company and by so doing having different innovative ideas, creative solutions and opinions as to how to achieve those objectives is set for the institution.
  (Sacramento State Information Resource and Technology, 15)

A mechanism should be introduced to filter those options that come up during the discussion. The idea of filtering views is very important because functional leaders or other mangers might be having a lot of opinions that maybe in conflict with the interest of the institution. Merging up ideas in line to the interest of the institution should be emphasized.

- Strategies and actions. This forms the core part of the strategic planning because it serves as the area where resource allocation and policies are formulated and implemented. This point gives the final judgment about what the institution needs do to close the gap from the present to the future and pragmatic solutions as to how to achieve those objectives. (Friel, 2009.)

This stage is very crucial and requires total involvement of all because this is the stage where ideas are turned into policies which is later implemented to help close the assumed gaps or questions – desired result expected.

- Resources: setting reasonable time and using the available resources judicious is very important. Open time and resource to achieve an objective usually result in time waste, encourage waste resources and also reduce accountability.
  (Sacramento State Information Resource and Technology, 15)

In other words, setting deadlines for task should be encouraged in order to increase productivity and also reduce waste of resources.

- Accountability. Individuals should be held accountable for their responsibilities. As the saying goes "if everyone is responsible, no one is responsible".
  (Sacramento State Information Resource and Technology, 15)

It is always important to let individuals account for their actions and inactions during performing their responsibilities.

- Communication. There must be constant communication internal and external between the stakeholders since they form the strategic plan. Effective communication channels such as periodic meetings, emails, personal contacts etc can be used. Constant communication helps monitor the progress or correct any deviations from the institutions objective.
  (Sacramento State Information Resource and Technology, 15)

In this case, Managers should design a mechanism that enhances effective communication flow within the institution. This will help prevent deviations and also help monitor the progress of the implemented policies.

- Evaluation: a proper mechanism should be developed to measure the progress of the task assigned to individuals. Persons that excel should be rewarded by word of mouth. (Friel, 2009.)

From these eleven mentioned checklist above, to develop a good IT strategic plan, institution must really consider their resources - internal and external environment before they agree on a particular plan since that plan will serve as a road map on which the institution will drive on to get to its final destination.

2.4 IT Strategic (management) processes

IT strategic processes have been defined differently by various researchers. One definition states that, IT strategic processes is the process of developing, implementing and evaluating cross functional decisions that will help an organization to achieve its objectives or targets.
(Strategic Management Process, Wiki Answer)

In other words, it is the process where an institution defines its objectives, design policies and plans to achieve those objectives and also allocate resources to implement those policies and plans of the institution. IT strategic management processes there-fore, combines the various cross functional business processes within the institution to achieve its objective.

It can be inferred that, IT strategic management processes forms the highest managerial level or position of an institution that is made up of board of directors, chief executive officers, chief information officer and senior managers.

Another definition states that, IT strategic (management) processes, forms the top level processes within a company that needs knowledgeable and professionals in handling complex task that may have wide effect on the structure and functioning of the organization. This process includes making decisions, converting data to information, allocating of resources (budget), formulating and implementing policies.

(Strategic Management Processes - Features and its Meanings, Management Study Guide)

In both definitions, it is obvious to say that, IT strategic processes is the highest body that is made up of top managers that make decisions using a clearly defined process.
The success or failure of an institution depends on the policies and plans formulated and implemented by these top level managers and therefore it is deem necessary for every institution to really pay attention to the formation of these management team and the processes being used to formulate and implement policies and plans (decisions) for the organization.

Notably, this study will focus on IT Governance.

2.5 IT Governance

Governance as a word has several meanings and definitions. An internet source states that, governance is the process of governing. It relates to decision that defines results or expectations. Governance can be managed as a sole process or be part of decision making or leadership processes. In other areas like business, governance is defined as the persistent management, making good policies, guidance, processes and right decision for a given area of responsibilities.
(Governance, Wikipedia)

Basically, governance is about setting rules or making decisions and making sure those rules are implemented. Now that we have gotten the general understanding of what governance is, it will be important to find out how governance is defined in the area of IT.

According to these two research scientists, Weill & Ross (2004, 8-9.) defined IT governance as "specifying the decision rights and accountability framework to encourage desirable behaviour in the use of IT".

From this definition, IT governance aims at focusing on decision rights and accountability with desirable behaviours in various enterprises. IT governance is not about just making decisions – management does that – but focus on determining who has the right to make decision and also who has a say (input) in the decision making process.

Brand & Boonen (2009, 4), on the other hand, defined IT governance as,

> "The system by which IT within enterprises is directed and controlled. The IT governance structure specifies the distribution of rights and responsibilities among different participants such as board, business and IT managers, and spells out the rules and procedures for making decisions on IT. By doing this, it provides the structure through which the IT objectives are set and the means of attaining those objectives and monitoring performance."

From both definitions, it can be inferred that IT governance is more focused on determining;

- The right person to make IT decision.
- A person that is allowed to contribute or be part of IT decision making process.
- How to hold individuals accountable for those IT decisions.

One must understand that management is the process of making and implementing decisions whilst governance determines who makes the decision right. Example, if HAAGA-HELIA University may want to invest into IT, it is the governance that determines who in HAAG-HELIA University holds the decision rights for how much to be invested into IT. Management as whole in their annual budget determines the actual amount of money to be invested and in which enterprises. If the desirable behaviour for the enterprise intends to achieve autonomy of its business units, then IT investment decisions will solely be with business unit heads.

It must be understood that, governance and desirable behaviour must be in line because problems may occur when they are mismatched (intending to have autonomy

of business units and decision right being determined by the chief information officer).

As it has always been a question for most leaders in enterprises and various institutions about the importance IT governance, these two research scientists, Weill and Ross at CISR are well convinced of the importance of IT governance as a result of their re-search with about 300 enterprises in 20 countries and some researcher. Below is some of the importance of IT governance according to them;

- Less work load – it is quiet normal to see senior managers being overloaded with a lot of responsibilities in various departments – considering request from various IT departments for approval can sometimes be very difficult that can lead to delays of IT projects or investment because senior managers do not have much time to consider all application or request for IT investing in bigger institutions like HAAGA-HELIA University let alone be part of many other IT related decisions, they automatically become bottleneck. A well designed IT governance enhance a clear, transparent and accountable IT decision making process that encourages consistent behaviour that is connected to the senior management vision while empowering everyone's creativity.(Weill & Rose, 2004, 18)

I support this assertion because IT governance encourages decisions to be made at various managerial levels depending on the kind of IT decisions that has to be made – empowerment of managers

- Efficient and effective allocation of resources – IT governance prevents under or over estimation of resources – equal sharing of resources. Institutions or enterprises that practise good IT governance are able to allocate resources to various IT and business units department judiciously without any waste. (IT Governance, the Corporate Executive Board Company)

This is true because the process tries to identify IT areas that needs more investment and also determines how much to be invested into that area.

- Increase flexibility – studies has also shown firms with good IT governance are able to recognize and respond faster to an unpredictable result in their business since individuals within their various business units are empowered to determine decision rights. (Weill & Ross, 2004, 18)

Effective IT governance is agile and thereby making it easy for institutions to make changes to their strategies or plan in case there is the need to do so. It must be noted that frequent changes or adjustment must be discouraged.

- Increase productivity – effective IT governance turns to increase productivity for institutions that governs IT governance differently. Because the process encourages the empowerment of managers at some levels to make decisions, this helps prevent delays in productions and thereby increase productivity. (IT Governance, the Corporate Executive Board Company.)

I also support this view because, IT governance enhance a common and shared understanding about IT – create business value

Notwithstanding the above mentioned importance of IT governance, Weill and Ross at CISR were able to identify some symptoms that signify ineffective IT governance. Among some of the symptoms are:

- Senior managers cannot explain IT governance. Studies have shown that most enterprises that perform poorly with IT governance is due to the lack of understanding of IT governance by the top management.
- IT Governance Changes Frequently. Although IT governance encourages an agile process that can easily be adapted to meet future changes does not mean IT governance should change with every small strategic change or problem

- IT Projects are slow and run late. Another indicator from studies shows most enterprises that performs poorly on IT governance are very slow in taking decisions on IT issues or projects and also most IT projects are run late
- Top Management Sees Outsourcing IT problems as Quick in solving them. The lack of understanding which aspect of IT problem to be outsourced but out-sourcing everything single problem of IT, clearly shows that IT governance is not working in that enterprise. (Weill & Ross 2004, 216)

2.6 Key IT Governance Decisions Areas

Understandably, IT governance is not only about making decisions but also identifies who makes that decisions or finding out the rightful person to make that decision or has the capacity to make decision?

At this stage, it was realized that there are six important IT service areas that most institutions may want to make critical decisions in order to create business value for IT – making strategic decisions. These interrelated IT decisions have been categorized as;

- IT principles decisions – these decisions relates to high statements levels being agreed by top management to be used as a guide as to how IT in used in business. Mostly, the question is how will IT create business value? (Weill & Ross 2004, 27)

These IT principles were referred to as IT governance goals or missions statements that give a common or shared understanding of strategic IT directions. In other words, it answers questions on which business IT strategies to be adopted by an enterprise to achieve its goals.

It must be understood that these IT principles decisions are interconnected with other key IT decisions to be made.

- IT architecture decisions – these decisions relates to how IT principles (captured IT goals, policies, relationships or objectives) are translated into re-

quirements that are meant to achieve the desired business and technical standardization integration. (Selig 2008, 9)

In this case, most managers consider enterprise architectural decisions as technical and therefore most decisions regarding enterprise architecture is given to architects.

- IT infrastructure – these decision relates to how an institution can develop a centralize system that can enable IT services to be shared internally. These IT infrastructures may include telecommunication networks services, management of shared customer database (Enterprise resource planning, Customer relationship management, and Supply chain management), large scale computers such as servers and mainframes. (Weill & Ross 2004, 34)

IT infrastructure decisions may also relate to which part of IT services should be outsourced or developed and maintained internally. Under estimation or over estimation of IT infrastructure can lead to waste of resources and also delay IT projects whilst good IT infrastructure in an enterprise will enhance efficiency.

- Business application decisions – these decisions relates to how to acquire business application that will be needed or what kind of business application the institution needs to be able to operate efficiently to generate value. Cisco and Amazon.com can be a good example to large enterprises that has benefited from strategic IT application and companies like Whirlpool and Hersey can also be example that has failed spectacularly at large IT application implementation. (Selig 2008, 9)

- IT investment and prioritization – these decisions relates to how much euro's or dollars to spend on strategic IT applications or services and which areas to invest more. Among all the five decisions IT investment seems to be the most visible but more controversial because it is difficult to determine how much to spend and where to spend since the returns on IT spending is uncer-

tain. Most mangers also wonder whether they are spending too little or too much on IT since there is no any mechanism to check that.

Over spending on strategic IT applications can increase the institutions budget and also under spending delay IT projects that may lead to poor performance. (Clark 2005, 4; Weill & Ross 2004, 45.)

- Human resource development - these decisions relates to how to develop and maintain a high level skilled managements and staff(s) to handle complex task within the institution. That is how much and where to constantly trains managers about new applications or acquire new skills. (Selig 2008, 9)

This is very critical because, the institutions must have managers that are abreast with current issues, technologies, applications and also acquire new knowledge to manage IT governance effectively.

In reference to the key IT governance decision areas, it can be said that, an institution that identifies the kind of decision to be made can translate its strategic business goals or processes into IT principles and provide the necessary alignment to help drive IT within the enterprise that will enhance efficiency and effectiveness and also create value.

Having dealt with the key areas, the next step is to identify the rightful person to make the decision and who or how should a person contribute during the decision making process. The individual involved and how that individual is involved in the process of making IT decision is very important to the success of IT governance. In this case, different individuals or groups (Chief information officers, Information officers, Board of Directors) are been referred to.

Who and how the person is involved in the process must be decided, agreed upon and communicated throughout the institution. These individuals or groups are al-

lowed to contribute into certain specific areas (within their area of operations) or maybe allowed to participate in all the IT decision making process.

However, Weill & Ross (2004, 58-63), proposes a model (political archetypes) that an institution should considers the total involvement of the six groups of people – business monarchy, IT monarchy, federal, feudal, duopoly, anarchy that represent the "WHO" against the key IT decision areas - IT principles decisions, IT architecture decisions, IT infrastructure decisions, business application decisions and IT investment and prioritization decisions that represent the "HOW" process.

- Business monarchy- these relates to decisions being made by a group of top business executives. It may include board of directors and other senior executives that head the various business units within enterprise. This excludes IT executives
- IT monarchy – these relates to decision solely made by IT professionals or executives. It may include Senior IT managers, information officers etc.
- Feudal – these relates to decisions being made by the key business units leaders or the key process owners within the enterprise
- Federal – this is the combination of both the IT monarchy and the feudal process in making decision. In order words, it is the involvement of both the IT professionals and various business unit leaders within the enterprise. Although this process might seems the best, it is also quiet difficult due to the fact that enterprise leaders have different concerns for their business unit leaders
- Duopoly – this model consist of only the IT directors plus any other group or person within the enterprise in the decision making.
- Anarchy – these relates decisions being made by business unit leaders internally or the by the end users. That is decisions made internally by the business unit leaders excluding outside interference.

In effect, these key areas of decision making and the six political archetypes, can determine who has an input or the decision right or both (input and decision).

For instance, decisions relating to IT principle, business application needs and IT investment and prioritization can adopt or use the federal archetype since it supports the combination of both the IT monarchy and the feudal process in making decision. In other words, it is the involvement of both the IT professionals and various business unit leaders within the enterprise. Although this process might seem the best, it is also quiet difficult due to the fact that enterprise leaders have different concerns for their business unit leaders.

The duopoly archetype approach is good for technical decisions such as IT architecture and IT infrastructure. Since duopoly model supports decisions being made internally within the business units. In other words, the technical experts are encouraged to make decisions on technical issues.
(Weill & Jeanne 2004, 65-70.)

Table 1 depicts the combination of what questions needs to be answered, who has the input or say in the decision making and finally how that person will be held accountable after the decision has been made (decision right).

Table1. Sample of IT governance framework (Decisions and Groups)

Decisions	**IT principles**		**IT Architecture**		**IT Infrastructure**		**IT Business Application**		**IT Investment**	
Archetype	**Input**	**Decision**	Input	**Decision**	Input	Decision	**Input**	**Decision**	**Input**	**Decision**
Business Monarchy										
IT Monarchy				X		X				
Feudal							X	X		

Federal	X									
Duopoly			X	X	X				X	X
Anarchy										

(Clark 2005, 5)

As to how the these variations (political archetype and the key IT decision areas) are widely used in most institutions, studies has proven that thirty six percent of institutions used the duopoly approach (IT directors and one other business unit leader) in answering IT principles question or making decisions although others approaches like the business and monarch approaches are also used. The reason for the usage of the duopoly approach is linked to thinking of the senior managers that they must take the lead to ensure that IT aligns with the business strategy since the importance of IT principles is to set out the strategic role of IT within the institution.

Secondly, it was proven that, about seventy percent of institutions favoured IT monarchy approach on answering questions on IT architecture since it is believed that IT architecture is more technical and should be handle by technical experts.

And also about sixty percent used IT monarchy approach in making decisions relating to IT infrastructure. The reason is that, it enhances IT independence in designing and price offerings.

Furthermore, decisions relating to business application need are a little divided between federal which is much more favoured than the feudal and business mon-

arch. The decisions relating to this business application need is to identify a particular system that needs to be acquired or built for the institution.

Finally, decisions relating to IT investment and prioritization, three different approaches are widely used – business monarchy, federal and duopoly approach. The essence of this approach is to solicit for different views to ensure that maximum value is derived from IT investment
(Weill & Ross 2004, 65-69.)

2.7 How Decisions are Formed and Implemented

As it is always said, there are two things one might not really want to watch being made – sausages and laws. In both cases, their outcomes looks neatly packaged from the result of a messy process. Same as IT governance which at the beginning can be very messy and often frustrating due to the debates, negotiations, constructive disagreements, etc. Although the process can be messy, individuals or groups leaders representing their business unit's views or goals maybe reconciled to the interest of the enterprise.

According to Weill & Ross (2004, 86-114.) IT governance framework has three different types of mechanism that can be used to develop and enact decisions within an institution and these are;

- The decision making structure- this relates to identifying organisational or business units and roles responsible for making IT decisions such as IT executives, business unit leaders, IT relationship managers etc.

This first stage of the process is very important because when a wrong group or unit is identified to form part of the decision making process, it can lead to mismatching of needs and also increase project failures since wrong decisions will be made.

- The alignment process – these mechanisms serves as a check that ensures that the daily behaviours are consistent with the enterprises IT principles or

IT governance goals. This mechanism checks or prevents deviations. Alignment process provides inputs for decision making. Examples of such mechanism are, evaluation processes, architecture exemption processes, service level agreement, metrics etc

This stage is also important because a monitoring mechanism is developed to evaluate the progress of an IT projects. The necessary correction can be made as fast as possible.

- The communication approach – Information dissemination or flow is a very important element in the success of IT governance. Announcements, advocates, memos, channels that spreads information about IT governance policies, goals and the outcome of IT decision making should be enhanced within the enter-prise.

It must be noted that, effective communication flow within an IT project is very important because it increases more awareness about the IT governance and other IT projects.

In order for each question to be answered on IT principles, IT architecture, IT infrastructure, human resource, business application needs and IT investment and prioritization decisions an institution needs to consider all the six political archetypes against these key IT decision areas mentioned above to know who has the input and decision right and also find out how to ensure that those decisions are effectively implemented. A mechanism should be adopted to effectively communicate the outcomes of the decision made within the institution. This will help in holding individuals or groups accountable for failures or success for any IT project.

3 The Study Area

HAAGA - HELIA University of Applied Science is a private / public educational institution which has over 10,000 students and over 700 staff(s) with several campuses around Finland. HAAGA-HELIA University is one of the biggest University

of Applied Sciences in Finland that offers education in diverse fields such Business Information technology, International business, Hotel and restaurant, physical education, etc. The institution degree programmes leads to bachelors and masters degree. HAAGA-HELIA University also has partnership with corporate companies as well as other universities all over the world.

With this vast network (over 10,000 students, 700 staff(s), several campuses and partnership), it is important for HAAGA-HELIA University to use IT strategy to create value for its business.

In HAAGA-HELIA University, the corporate planning and IT services department is the unit that is responsible for all HAAGA-HELIA's IT resources which includes upkeep and development, IT support, steering support and quality assurance services. These activities in a way support quality, results and secure operations in the University.

The unit director reports to the school director – chancellor (board of directors) and decision making relating to IT services in the schools is performed through shared governance. The corporate planning and IT services forms the bigger body of the IT department and under these we have;

- Unit Director – currently headed by Ari Hälikkä who is responsible for the overall planning of the department.
- Operations and planning and monitoring support services – this department is responsible for the up keep and develops steering and monitoring systems and methods.
- Quality assurance services – they are also responsible for creating, up keeping and developing HAAGA-HELIA's quality assurance systems
- IT administration services – they are responsible for the IT architecture and the development of strategic IT resources
- IT system services – deals with the up keep and developing systems portfolio as well as system acquisition and steering of development projects

- IT support – in charge of the help desk, the phone network, classroom IT and audio-visual as well as procurement and changes relating to those items
- Special interest group teams – final, this group is responsible to bring together IT experts to focus on specific matters relating to agreed plans etc.

(Hälikkä, A. 17 Apr 2013)

It was realized that the University has no any external IT agency hired to handle any of the corporate planning and IT services instead everything was done internally but with some influences from the government and other universities within Finland.

The desire to research into the University's IT governance rose up due to the fact that there has been a growing interest in that topic – IT strategic planning and processes (IT governance) and also due to the growing good relationship among certain functional areas within HAAGA-HELIA University. This was the driving factor that led to research into HAAGA-HELIA's University IT governance.

The method used in this study was by selecting staff(s) within the corporate planning and IT services and also those outside the corporate planning and IT service department. In all, I was able to interview three managers.

3.1 First Interview

The first interview was with Minna Kivihalme who is a programme director in education (ICT) in the University. Although her position does not fall under the corporate planning and IT services, a decision was made to interview her to find out how she understood the role of IT in the University as a whole as well as her area of operation. Exploring her awareness about certain IT applications, IT processes (decision making), IT strategy, as well as some challenges she was facing with IT services in the University was one of the interview priorities.

It is important because she was an end user of which any IT decision being made by the board of directors relating to IT issues will largely affects her duties.
From the interview, the following points were deduced;

- The role of IT in the University is very crucial for short and long planning. In other word, it is used for daily, semester and yearly planning. She also mentioned that, IT is a tool that is used in supporting most of their educational activities such as moodle – used by student, winhall – used by teachers, intranet etc.
- On IT acquisition decisions – it was clear that, although the board of directors has got their own plans and decisions on IT acquisition, they are other sub groups (middle managers) as well IT specialist teams that play a role in IT acquisition decisions. Individuals may also have some influence on those IT decision depending on one's position.

This is a good sign of IT governance because there is an IT process (IT governance) that allows sub groups (business units) to have a say or input in IT decision making. It can be said that, business application needs are also identified by individuals or the business units and final decision are made by heads of the units or the board of directors.

- On Challenges – In her opinion, the University's process is not quit flexible (not agile) usually decision are solely made on semester and yearly basis which makes changes within a semester quit difficult. She hoped, in future the process will be more agile for easy adjustment along the line. Furthermore, she opined that, there is some kind of gap – relationship between the corporate planning and IT services and the end user's but she was quick to add that, the gap sometimes depends on the level of a person's position.

Interview with Minna has proven that, the University was doing well in its IT governance but still needs some improvements.
(Kivihalme, M. 10 Apr 2013)

3.2 Second Interview

The second respondent was Ari Hälikkä who heads the corporate planning and IT services – unit director. It is very important to interview such an individual because

he falls within the core area of the research and also plays a major role in the decision making process in the university. The outcomes of our discussions were;

- On IT strategy – They are well planned and drafted IT strategies for the University as a whole and various units has their own IT strategies. Internally, it is called ICT development plan that is approved by the management group. But the overall IT strategy of the University is approved by the board of the directors.

It is obvious to say that, Ari is aware of these IT strategies and the processes involved at agreeing on those strategies due to his position. One can notice IT governance at this point because IT decisions can be made at various business unit levels by their leaders or the groups. This is important because it prevent mismatching of an application need. What that means is that, it will be wrong for the board of directors to make all the decisions for various business units without the involvement of the business unit leaders. Mismatching of application need arises when a different unit or group of managers buys or introduces a particular application for another business unit without the involvement of the business unit that intends to use the application – leads to introducing wrong application.

- On IT principles – certain IT principles such as enterprise architecture principles, principles of information security and other large number of operating guides and rule are available in the University. It was also mentioned that these principles goes under various stages of preparation that involves ICT experts, architects, and ICT management before it is finally being approved at the management group level or the business unit level. Monitoring of these principles is done annually but in some ways checks are done daily.

These IT principles were referred to as IT governance goals or missions statements because it's gives a common understanding of strategic IT planning and processes a specific direction.

- On Acquisition decisions – the final decision to buy an application depends largely on the value of what to be acquired. Although there might be some lay down process, the chief information officer in the University is the gate-keeper.

This means that, business units groups or management groups as well as board of directors can make the final decision depending on the kind of application to be acquired. Technical application decision might be made by technical experts and not the board of directors.

- On Challenges – He also agreed there is a problem of gap between the decisions makers, implementers and the end users. This gap problem usually occurs when there is a bureaucratic leadership.
  (Hälikkä, A. 17 Apr 2013)

3.3 Third Interview

The final interview was with Terttu – project manager (enterprise architecture) in the University. The interview was limited to enterprise architectural issues in the University.
It was interesting to discover that a new architectural framework called KARTTURI has been developed and introduced in Finland and some of the developers are from the ICT department in HAAGA-HELIA University. KARTTURI is a replacement for TOGAF which was more complex and complicated. Some of the outcomes of the interview are;

- On IT strategy – The KARTTURI framework had a well defined IT strategy for the enterprise architecture which was well known and understood by Terttu. She took me through the four levels – WHY, WHAT, HOW AND THE PHYSICAL TOOLS.

The “WHY” level is the strategic level that develops, design and implement all the enterprise architecture strategies.

It was also striking to know that, the KARTTURI framework had a model called the maturity level that serves as a monitoring mechanism. The model has five stages and each stage has many indicators that inform the current position of the institution.

- On Decision Making – it was interesting to know that, experts or specialists who develop business processes within enterprise architecture are the same people who use those processes. This means, they create the process and also use the process – decisions are made directly by them (solely the specialist).

The major problem identified with this process is that, because so much freedom has been given to these specialists to design or make their descriptions, there has been a problem of different languages being used.

- On acquisition decisions – It was very clear that the business unit department are the main originators of or suggest for the need of application in connection with the ICT department. There is an alignment between the business unit and ICT. The final approval is made by the management.

- Challenges – there are some minor challenges but these challenges can be attributed to the new framework KARTTURI that has been introduced. Not everyone is familiar with it yet.

This interview has also proven that, HAAGA – HELIA University is working hard to upgrade or improve upon their processes in order to create IT value through strategic plan and processes.
(Terttu, H. 2 May 2013)

Although concrete and accurate information was achieved by this method - interviewing three managers, it can be said that, this does not provide enough grounds to conclude or have the true picture of IT governance process in the University.

4 HAAGA-HELIA University IT Governance framework

Table 2 illustrates the five key IT decision areas and the political archetypes within HAAG-HELIA University (IT governance framework).

Table2. HAAGA-HELIA University, IT governance frame work

	IT principles		**IT Architecture**		**IT Infrastruc-ture**		**IT Business Application**		**IT Investment**	
	Input	**Decision**	Input	**Decision**	Input	Decision	**Input**	**Decision**	**Input**	**Decision**
Board of Directors		X								X

Info management & Dev. Grips	X			X		X		X		X
Functional or business unit leaders	X		X					X	X	
Heads of IT	X		X		X		X	X	X	X
Experts or Specialist			X		X		X		X	
End users or Staff(s)							X			

From the table above, the University's IT governance encourages total involvement of management, functional unit leaders, Heads of IT and end users in their decision making process which is good because it generates a shared and common understanding of the institutions IT strategic goal.
In contrast, this approach can be cumbersome because it may lead to mismatching of application needs, waste of resources and more importantly delays in decision making.

Notably, IT governance is "specifying the decisions rights and accountability framework to encourage desirable behaviour in the use of IT".
In this definition IT governance aims at focusing on decision rights and accountability with desirable behaviours in various enterprises.
(Weill & Ross 2004, 8-9.)

This means, the process must be simple – identify the decision right and the input right within the institution which will intend make the process fast, prevent mismatching of application needs and more importantly holding individuals accountable IT project failures.

5 Proposed IT Governance Framework for HH University

Based on the findings of this study in HAAGA - HELIA University and other sources especially Weill and Ross at CISR, for HAAGA-HELIA University to be able to improve or modify its current IT governance process, three different methods of questioning in decision making should be adopted:

- What kind of decisions does the University wants to make about IT?
- Who has a say or input in the process – knowledge level, background and skills.
- How to make and implement those agreed decisions.

Base on those three questions, below is a table showing a proposed IT governance frame work for the University.

Table3. Proposed IT governance framework for the University.

	IT principles		**IT Architecture**		**IT Infrastructure**		**IT Business Application**		**IT Investment**		**Institution Needs**	
	Input	**Decision**	Input	**Decision**	Input	Decision	**Input**	**Decision**	**Input**	**Decision**	Input	Decision
Board of Directors		X								X		

Info man-age-ment & Dev. Grips		X		X		X						
Func-tional leaders											X	X
Heads of IT			X		X		X	X		X		
Experts												
End users or Staff(s)							X				X	

In addition, IT governance process combined together with the three different mechanisms already mentioned in the report - decision making structure, alignment processes and communication approaches enhance transparency, prevent mismatching and also allow individuals or business groups to be held accountable for their actions or inactions

6 Recommendation

Based on the findings of this study in HAAGA-HELIA University, I suggest that, in future, more managers could be interview from all the departments within the University and also questionnaires could also be drawn for staff(s) as well as the stu-

dents. In this way, one can be able to ascertain the accurate IT governance process being used in HAAGA-HELIA University.

Furthermore, I recommend that, certain questions need to be answered which in a way will serve as a guide or reference point when making IT decisions. Among some of these questions are;

- What kind of IT decisions is to be made in the institutions? (Example, what kind of tools or systems do we need, how do we create business values with IT etc)
- How understandable and transparent is IT governance process among the senior managers in HH University?
- Who has a"SAY" or"INPUT" in the decision making process?
- Who has the final"DECISION RIGHT"?
- How should those three mechanisms – decision making structure, alignment process and communication approach be related to make the process simple?
- How should the monitoring be done?

(Clark 2005, 14)

7 Attachment

Attachment 1. Interview Questions.

HAAGA-HELIA
University of Applied Sciences

Bawah Peter
Thesis Work – Interview Question
28.03.2013

The planned questions are categorized into three parts namely:

1. Decision making in Haaga-Helia UAS
2. External factors
3. Haaga-Helia systems, application, practices, strategies and support

1. DECISION MAKING – ARCHITECTURE

- Are they any lay down IT principles in HH University as to how IT is being used?
- Who make those principles (IT department, BOD, or government)?
- How are those principles monitored?
- What factors does HH University consider when making decision when designing or adopting IT architecture? Is it done internally or outsourced?
- Are they any lay down procedures for acquiring IT infrastructure, what factors are considered by agreeing to use a particular server, mainframe or telecommunication network etc
- Is process agile (easily adjusted or on semester basis)?
- Are there gaps between the decisions makers, implementers and the user?
- What the major challenges in making decisions process
- What are some of the major issues or practices you might want Haaga-Helia to adopt in future and WHY?
- Are you aware of any IT process example IT governance, ITIL, COBIT

2. **HAAGA-HELIA SYSTEMS, APPLICATIONS, PRACTISES, STRATEGIES AND SUPPORT**

- How do you see the role of IT in the HH?
- How do you acquire a new application for HH (consultants, vendors or in built)?
- Do they hire a consultant if they are buying from a vendor?
- How does your IT support your business?
- What kind of IT strategy do they use and how do you support?
- What are the critical issues you need to consider when planning IT strategy?
- How do you implement these strategies?
- what are the most remarkable IT projects at the moment and in the future
- In about 10 years from now, how will you see HH University with regards to IT strategic planning and process

3. **EXTERNAL FACTORS**

- Does the local government interfere in the formation of the top management, acquiring of infrastructures or influence in the kind of principles or IT practice to use?
- Does the government restrict or limit the amount money spent on IT?
- How does Haaga-Helia manage its partner institutions abroad and corporate companies internally, are any there any IT strategic management processes?

Attachment 2. Questionnaire on IT governance framework

Bawah Peter
Bite thesis 2013
Researching IT strategic planning and processes in educational institution.

The below has five variables against the groups within HH University – most questions every institution may want to answer and make decisions on relating to IT.

The idea is for you to mark "X" in the columns where a particular group has input (say) or the decision right or both (input and decision) on these five variables. This will help me conclude my report and also make my recommendations.

	IT principles		**IT Architecture**		**IT Infrastructure**		**IT Business Application**		**IT Investment**	
	Input	**Decision**	Input	**Decision**	Input	Decision	**Input**	**Decision**	**Input**	**Decision**
Board of Directors										
Info management & Dev. Grps										
Functional or business unit leaders										
Heads of IT										
Experts or Specialist										
End users or Staff(s)										

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	IT principles		**IT Architecture**		**IT Infrastructure**		**IT Business Application**		**IT Investment**	
	Input	**Decision**	Input	**Decision**	Input	Decision	**Input**	**Decision**	**Input**	**Decision**
Board of Directors										
Info management & Dev. Grps										
Functional or business unit leaders										
Heads of IT										
Experts or Specialist										
End users or Staff(s)										

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